

COURSE: INFORMATIC SKILLS			
ACADEMIC YEAR: 2016-2017			
TYPE OF EDUCATIONAL ACTIVITY: BASIC			
TEACHER: Prof. Vincenzo Trotta			
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phone:		mobile (optional):	
Language: ITALIAN			
ECTS: (lessons e tutorials/practice) 3	n. of hours: (lessons e tutorials/practice) 24	Campus: Potenza Dept./School: Dipartimento di Scienze Program: BIOTECNOLOGIE (L2)	Semester: II

EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

This course introduces the student to Informatics, using computer databases to store, retrieve and assist in understanding biological information.

Students will be introduced to the basic concepts behind Bioinformatics and data analysis. Hands-on sessions will familiarize students with the details and use of the most commonly used online tools and resources.

PRE-REQUIREMENTS

- basic concepts of informatics;
- basic concepts of biology;
- basic concepts of genetics.

- Introduction to bioinformatics: to analyze, organize and visualize biological data in ways that increase understanding of this data.
- Data distribution: internet and theWorld Wide Web
- Biological databases: Entrez and SRS
- Find region of similarity between a given sequence and other sequences (Basic Local Alignment Search)
- Introduction to *Microsoft Office: Word, Excel, Power Point*.
- Electronic sheet: to insert, organize and analyze data.
- Data presentation: figures and tables
- Basic statistics in Calc: mean, variance and statistic inference.
- Data analysis: chi-square, F-test and t-Student test.
- Use of the computer for Database searching (SRS, Entrez, FASTA and BLAST).
- Use of the computer for Data analysis.

TEACHING METHODS

24 hour of theoretical lessons and laboratory tutorials

EVALUATION METHODS

Oral examination

TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

Textbook: Pascarella S., Paiardini A. – Bioinformatica – eds. Zanichelli

INTERACTION WITH STUDENTS

Office hours by appointment.

EXAMINATION SESSIONS (FORECAST)¹

05/06/2017, 05/07/2017, 05/09/2017, 05/10/2017, 06/11/2017, 05/12/2017.

SEMINARS BY EXTERNAL EXPERTS YES ☐ NO ☒

FURTHER INFORMATION

¹ Subject to possible changes: check the web site of the Teacher or the Department/School for updates.